

REMARKS

The Office Action mailed November 27, 2007, has been carefully reviewed and the foregoing amendments and following remarks have been made in consequence thereof.

Claims 1-42 are pending in this application. Claims 1-42 stand rejected.

The rejection of Claims 1-42 under 35 U.S.C. § 102(e) as being anticipated by Bahrs et al. (U.S. Patent No. 6,654,932) ("Bahrs") is respectfully traversed.

Preliminarily, Applicants respectfully traverse the assertion within the Office Action that the term "testing" as recited in the claims of the present application and as used in the specification, is the equivalent of the term "validate" as used in Bahrs. Applicants respectfully submit that the term "validation" as defined in Bahrs (see Col. 21, Lines 24-55) is not analogous to testing at least one rule incrementally using the selected asset data, wherein testing, as defined in the present specification at paragraph 4 for example, includes comparing an asset *output* to an expected asset *output*. Conversely, in Bahrs, a "normalized method is used to input a string, validate the value and output a string that will be set into the data model and/or transmitted via a RequestEvent to a destination. The ValidationRule provides two static functions to apply edits or normalizes on an *input* string given a list of edit rule class names." See Bahrs Col. 21 Lines 37-43. Furthermore, "(t)he ValidationRule will compare user *input* against the selected business rule (step 3208). If the user *input* is not valid, then a ValidationRuleException is thrown (step 3210) and the process terminates thereafter." See Bahrs Col. 33 Lines 11-14. Applicants respectfully assert that one skilled in the art would understand that "testing", as recited in the claims and specification of the present application, is not the equivalent of the term "validate" as used in Bahrs.

Furthermore, Applicants respectfully traverse the assertion within the Office Action that the recitation of "incremental" as used in the present application is analogous to the term "sequential" as used in Bahrs. Applicants respectfully submit that Bahrs does not incrementally test the data, as in the present application, but rather sequentially takes in new data after executing one operation on the data to edit or normalize an output data string. See Bahrs Col. 21 Lines 34-55.

Moreover, Applicants respectfully traverse the assertion within the Office Action that the recitation of “generating at least one rule” as used in the present application is analogous to the phrase “take a user-input string and generate an output” as used in Bahrs. Specifically, applicants respectfully submit that the recitation of “generating an output” is not analogous to the claimed recitation of “generating at least one rule” wherein the generation is based on the relation between asset input and asset output.

Additionally, Applicants respectfully traverse the assertion within the Office Action that the recitation of “determining an expected asset output for the selected data” as used in the present application is analogous to the phrase “failure results in a ValidationRuleException” as used in Bahrs. Applicants respectfully submit that a failure in format conversation resulting in a ValidationRuleException (3928) as used in Bahrs is not analogous to monitoring the output of the rule at each increment to determine if the asset output matches the respective expected asset output.

Moreover, Applicants respectfully traverse the assertion in the Office Action at pages 15, 16, 20, 21, 23 and 25 regarding the use of “wherein” clauses.

Claim scope is not limited by claim language that suggests or makes optional but does not require steps to be performed, or by claim language that does not limit a claim to a particular structure. However, examples of claim language, although not exhaustive, that may raise a question as to the limiting effect of the language in a claim are:

- (A) "adapted to" or "adapted for" clauses;
- (B) "wherein" clauses; and
- (C) "whereby" clauses.

The determination of whether each of these clauses is a limitation in a claim depends on the specific facts of the case. In Hoffer v. Microsoft Corp., 405 F.3d 1326, 1329, 74 USPQ2d 1481, 1483 (Fed. Cir. 2005), the court held that when a "'whereby' clause states a condition that is material to patentability, it cannot be ignored in order to change the substance of the invention." Id. However, the court noted (quoting Minton v. Nat'l Ass'n of Securities Dealers, Inc., 336 F.3d 1373, 1381, 67 USPQ2d 1614, 1620 (Fed. Cir. 2003)) that a "'whereby' clause in a method claim is not given weight when it simply expresses the intended result of a process step positively recited." Id.

See MPEP § 2111.04.

Applicants respectfully submit that the limitations that follow the “wherein” clauses throughout the claims in the present application do provide conditions that are material to patentability, and do not simply express the intended result of a process step. For example, Claim 1 recites a method step of “relating an asset output to at least one asset input wherein the at least one asset input includes at least one of a measured process parameter and a derived process parameter relatable to the asset output.” Applicants submit that the recitation following the “wherein” clause provides a definition to terms included in the claim and provides added patentable weight to the claim.

Bahrs describes a method for validating user input. The method is implemented on a distributed data processing system (100). Cases describing functions of an application that are most reused, for example, a ViewController that uses a ValidationRule, are developed by first identifying the actors in the system. A specific business validation rule is selected (step 3200), and a class that extends the ValidationRule is created (step 3203). The ValidationRule may edit and/or normalize (steps 3204 and/or 3206) user-inputted data. An edit() method uses user-inputted data to generate a formatted output for display. A normalize() method uses user-inputted or formatted data to generate a normalized output for transmitting to storage (step 3206). The ValidationRule compares the user-inputted data against the selected business rule (step 3208) to validate the user-inputted data. If the user-inputted data is not valid, a ValidationRuleException is performed (step 3210), and the method terminates. If the data is valid, the method terminates. Notably, Bahrs does not describe nor suggest testing at least one rule incrementally using the selected asset data by determining an expected asset output for the selected data, and comparing each asset output to each respective expected asset output. Rather, Bahrs describes applying the edit or normalize rules sequentially on an inputted data string.

Claim 1 recites a computer-implemented method of managing a machinery monitoring system, the method including “relating an asset output to at least one asset input wherein the at least one asset input includes at least one of a measured process parameter and a derived process parameter relatable to the asset output . . . generating at least one rule based on the relation wherein the at least one rule defines the asset output based on the at least one asset input . . . selecting at least one of live asset data, historical asset data, user-supplied asset data, and third party supplied asset data . . . determining an expected asset output for the

selected data . . . testing the at least one rule incrementally using the selected asset data . . . determining an expected asset output for the selected data . . . comparing each asset output to each respective expected asset output . . . monitoring the output of the at least one rule at each increment . . . outputting a test result.”

Bahrs does not describe nor suggest a computer-implemented method of managing a machinery monitoring system as is recited in Claim 1. Specifically, Bahrs does not describe nor suggest a method that includes testing at least one rule incrementally using the selected asset data by determining an expected asset output for the selected data, and comparing each asset output to each respective expected asset output. Rather, Bahrs describes testing user-inputted data using only a selected validation rule. Furthermore, Bahrs does not describe nor suggest a method that includes selecting at least one of live asset data, historical asset data, user-supplied asset data, and third party supplied asset data to test at least one rule, testing the at least one rule incrementally using the selected asset data wherein the testing includes comparing the asset output to expected asset output, and storing the results following at least one of an end of the incremental test and a change of state. Rather, Bahrs describes selecting a validation rule to test user-inputted data and applying the rule sequentially on an inputted data string.

Moreover, Bahrs does not describe nor suggest a method that includes generating a rule based on a pre-existing relationship between an input and an output where the rule defines the asset output using a combination of said at least one asset input. Rather, Bahrs describes selecting a validation rule based only on user-inputted data. Accordingly, for at least the reasons set forth above, Claim 1 is submitted to be patentable over Bahrs.

Claims 2-14 depend from independent Claim 1. When the recitations of Claims 2-14 are considered in combination with the recitations of Claim 1, Applicants submit that dependent Claims 2-14 likewise are patentable over Bahrs.

Claim 15 recites a computer-implemented machinery monitoring system for a plant, the system including a client system further including “a user interface . . . a database for storing Rule Sets, wherein the Rule Sets include at least one rule expressed as a relational expression of a real-time data output relative to a real-time data input that includes at least one of a measured process parameter and a derived process parameter relatable to the real-

time data output, wherein the relational expression is specific to a plant asset, and . . . a processor programmed to control said machinery monitoring system to, said processor manager programmed to prompt a user for a security control password . . . generate a plant asset operational rule from an application expert wherein the operational rule defines the real-time data output based on the at least one real-time data input . . . test said rule based on at least one of live asset data, historical asset data, user-supplied asset data, and third party supplied data, wherein the test includes determining an expected asset output for the selected data . . . comparing each asset output to each respective expected asset output; . . . display incremental results of said test, and . . . output a test result.”

Bahrs does not describe nor suggest a computer-implemented machinery monitoring system for a plant as is recited in Claim 15. Specifically, Bahrs does not describe nor suggest a system that includes a processor programmed to test a rule based on at least one of live asset data, historical asset data, user-supplied asset data, and third party supplied data wherein the test includes determining an expected asset output for the selected data and comparing the real-time output to an expected real-time output and store the results following at least one of an end of the incremental test and a change of state. Rather, Bahrs describes testing user-inputted data using only a selected validation rule. Furthermore, Bahrs does not describe nor suggest a processor programmed to generate a plant asset operational rule from an application expert where the input includes a measured process parameter or a derived process parameter relatable to the real-time output. Rather, Bahrs describes selecting a validation rule based on user-inputted data and applying the rule sequentially on an inputted data string.

Moreover, Bahrs does not describe nor suggest a system that includes Rule Sets that include at least one rule expressed as a relational expression of a real-time data output relative to a real-time data input, where the input comprises a measured or derived process parameter relatable to the asset output, and further where the relational expression is specific to a plant asset. Rather, Bahrs describes business validation rules that edit and/or normalize user-inputted data. Accordingly, for at least the reasons set forth above, Claim 15 is submitted to be patentable over Bahrs.

Claims 16-28 depend from independent Claim 15. When the recitations of Claims 16-28 are considered in combination with the recitations of Claim 15, Applicants submit that dependent Claims 16-28 likewise are patentable over Bahrs.

Claim 29 recites a computer program embodied on a computer readable medium for managing a machinery monitoring system using a server system coupled to a client system and a database, the client system including a user interface, the program comprising a code segment that prompts a user for a security control password and then “relates an asset output to at least one asset input that includes at least one of a measured process parameter and a derived process parameter relatable to the asset output . . . generates a plant asset operational rule from an application expert wherein the operational rule defines an asset output based on at least one asset input . . . tests said rule based on at least one of live asset data, historical asset data, user-supplied asset data, and third party supplied data wherein the testing includes determining an expected asset output for the selected data . . . comparing each asset output to each respective expected asset output . . . displays incremental results of said test, and . . . outputs said results of said test.”

Bahrs does not describe nor suggest a computer program embodied on a computer readable medium for managing a machinery monitoring system as is recited in Claim 29. Specifically, Bahrs does not describe nor suggest a computer program that tests a rule based on at least one of live asset data, historical asset data, user-supplied asset data, and third party supplied data wherein the testing includes determining an expected asset output for the selected data and comparing the asset output to the respective expected asset output. Rather, Bahrs describes selecting a validation rule based on user-inputted data and applying the rule sequentially on an inputted data string. Furthermore, Bahrs does not describe nor suggest a computer program that generates a plant asset operational rule from an application expert where the operational rule defines an asset output using a combination of at least one asset input. Rather, Bahrs describes selecting a validation rule based on user-inputted data. Accordingly, for at least the reasons set forth above, Claim 29 is submitted to be patentable over Bahrs.

Claims 30-42 depend from independent Claim 29. When the recitations of Claims 30-42 are considered in combination with the recitations of Claim 29, Applicants submit that dependent Claims 30-42 likewise are patentable over Bahrs.

For the reasons set forth above, Applicants respectfully request that the Section 102 rejection of Claims 1-42 be withdrawn.

In view of the foregoing amendment and remarks, all the claims now active in this application are believed to be in condition for allowance. Reconsideration and favorable action is respectfully solicited.

Applicants do not believe any fees are due in connection with this amendment; however, the Commissioner is hereby authorized to charge any fees which may be required to Deposit Account No. 012384 in the name of ARMSTRONG TEASDALE LLP.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'William J. Zychlewicz', written over a horizontal line.

William J. Zychlewicz
Registration No.: 51,366
ARMSTRONG TEASDALE LLP
One Metropolitan Square, Suite 2600
St. Louis, Missouri 63102-2740
(314) 621-5070